

## Medical & ITE

### General Purpose



**3" x 5" x 1.56"**

## General Specifications:

Input voltage ..... 90 VAC to 264 VAC  
Input frequency ..... 47 Hz to 63 Hz  
Inrush current ..... < 30/60A at 115/230VAC  
Hold up time ..... 20ms typical  
Over load/Short circuit protection ..... auto recovery  
Over voltage protection ..... latch off  
Operating temperature ..... -20°C to 70°C  
derating: 2.5% / °C > 50°C for convection cooling  
Storage temperature ..... -40°C to +85°C

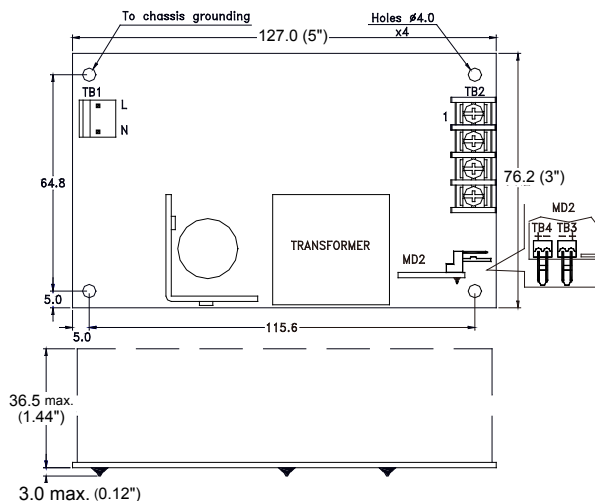
## Features:

- Peak load (1.4 ~ 2 x rated current, Vo=rated for 5 sec)
- Design for BF application
- Convection cooling for Rated power
- Built-in PFC and 12V output for fan, available for G12x, G16x, and G20x
- EMI class B
- -20°C to +70°C operating temperature

## Applications:

- For peak load and surge load applications, such as motor drive, coffee machine, vending machine, gaming machine, and other industrials.
- For EMI class B application, such as home healthcare device, and other medical devices.

## Mechanical Specifications:



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EMI ..... EN55022 "B", EN61000-3-3  
Harmonics ..... EN61000-3-2, class D  
EMS ..... EN61000-4-2, -3, -4, -5, -6, -8, -11  
Safety ..... UL/CSA 60950-1, 2<sup>nd</sup> edition, EN 62368-1  
ANSI/AMMI/CSA/EN60601-1, 3.1 edition  
CB report, CE mark, RM report/file  
Energy Saving (for w/o -A suffix) ..... ENERGY STAR  
for computers version 6.0  
for displays version 6.0  
ErP regulation EC(No) 1275/2008

## Notes:

1. Size:  
3" x 5" x 1.56" / 76.2 x 127 x 39.5 (mm)
2. Mounting Hole:  
64.8 x 115.6 (mm)
3. Connectors:  
AC input: Molex 5277-02A or equivalent  
DC output: Terminal blocks (default for SNP-G207) or Molex 5273-08A (default for others) or equivalent  
Fan, Remote sense: Molex 5045-02A or equivalent
4. Output Pin assignment: Function Pin assignment:

| Pin No.      | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|
| SNP-G207     | +Vo | +Vo | GND | GND |     |     |     |     |
| OTHER MODELS | +Vo | +Vo | +Vo | +Vo | GND | GND | GND | GND |

| Function Pin | TB3  | TB4     |
|--------------|------|---------|
| FAN Output   |      |         |
| Remote Sense |      |         |
| 1            | GND  | Sense - |
| 2            | +12V | Sense + |
5. Packing:  
Net weight: 353 g approx. / unit  
Gross weight: 15 kg approx. / carton, 16 units / carton  
Carton size (mm): 384 (L) x 339 (W) x 327 (H)

10 years Warranty (contact Skynet's Distributors for details)

### Output Specifications:

| MODEL NO.  | OUTPUT RAIL | LOAD |       |       |       | INITIAL ACCURACY | STEP EFFICIENCY |            |             | AVERAGE EFFICIENCY |
|--|-------------|------|-------|-------|-------|------------------|-----------------|------------|-------------|--------------------|
|  |             | MIN. | RATED | MAX.  | PEAK  |                  | @ 20% LOAD      | @ 50% LOAD | @ 100% LOAD |                    |
| SNP-G207<br>SNP-G207 -A<br>SNP-G207 -M<br>SNP-G207 -MA | +12V        | 0A   | 16.5A | 25A   | 33A   | +11.9V~+12.1V    | 82%             | 88.5%      | 89.5%       | 86.5%              |
| SNP-G208<br>SNP-G208 -A<br>SNP-G208 -M<br>SNP-G208 -MA | +15V        | 0A   | 12A   | 18A   | 22.5A | +14.9V~+15.1V    | 82%             | 88.5%      | 89.5%       | 86.5%              |
| SNP-G205<br>SNP-G205 -A<br>SNP-G205 -M<br>SNP-G205 -MA | +18V        | 0A   | 11.1A | 16.6A | 23.3A | +17.9V~+18.1V    | 82%             | 88.5%      | 89.5%       | 86.5%              |
| SNP-G209<br>SNP-G209 -A<br>SNP-G209 -M<br>SNP-G209 -MA | +24V        | 0A   | 8.4A  | 12.5A | 16.7A | +23.9V~+24.1V    | 83%             | 89.5%      | 91%         | 88%                |
| SNP-G20G<br>SNP-G20G-A<br>SNP-G20G-M<br>SNP-G20G-MA    | +28V        | 0A   | 7.2A  | 10.7A | 13A   | +27.9V~+28.1V    | 83%             | 89.5%      | 91%         | 88%                |
| SNP-G20J<br>SNP-G20J -A<br>SNP-G20J -M<br>SNP-G20J -MA | +36V        | 0A   | 5.6A  | 8.3A  | 11A   | +35.8V~+36.2V    | 84%             | 90.6%      | 91%         | 88%                |
| SNP-G20T<br>SNP-G20T -A<br>SNP-G20T -M<br>SNP-G20T -MA | +48V        | 0A   | 4.2A  | 6.3A  | 8.4A  | +47.8V~+48.2V    | 84%             | 90.6%      | 91%         | 88%                |

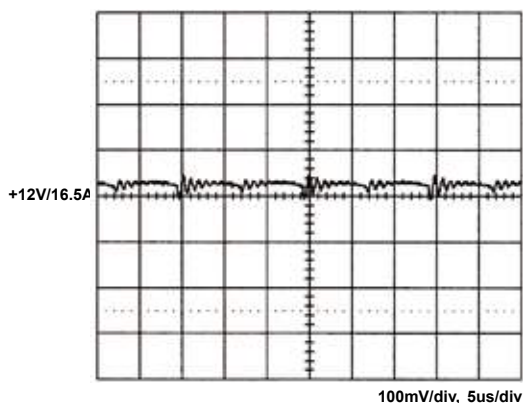
### Note:

- Standby Power Consumption with System:**  
For computers and displays, ENERGY STAR in U.S. and ErP regulation in Europe require the input power should be less than 0.5W at standby mode.
- Output Load:**  
200W for convection cooling; 300W for forced air cooling.
- Peak Load Duration:**  
Peak 400W can last for 5 sec.
- Isolation Grade:**  
Primary ↔ Ground : 1MOPP (1500Vac)  
Primary ↔ Secondary : 2MOPP (4000Vac)  
Secondary ↔ Ground : 1MOPP (1500Vac)
- Leakage Current:**  
Earth leakage current < 300uA  
Touch current < 100uA
- EMI Grounding:**  
If there is a metal sheet under the power supply, connect the EMI ground to the metal sheet.
- Model Selection:**  
Most of power supplies will create audible burst sound at light load, if the application wants to meet input power < 0.5W at standby mode.  
SNP-G20x is for ITE application which requires standby mode.  
SNP-G20x-A is for ITE application but without burst sound and no standby mode.  
SNP-G20x-M is for medical application which requires standby mode.  
SNP-G20x-MA is for medical application but without burst sound and no standby mode.

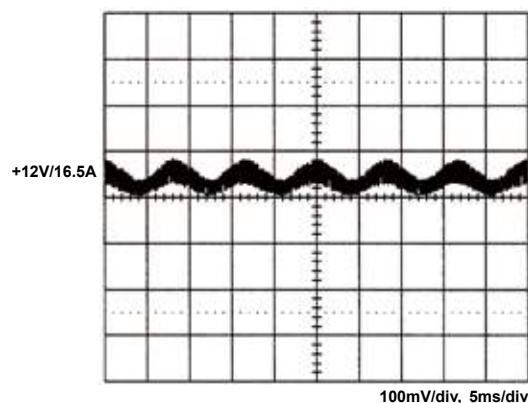
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## Performance for SNP-G207:

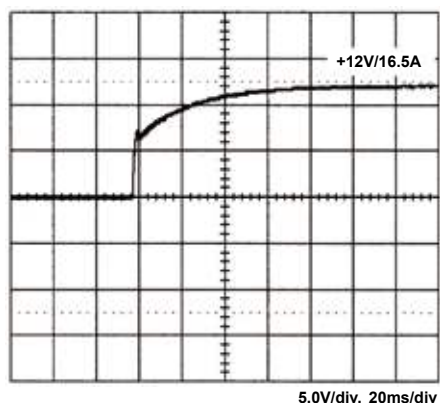
### 1. Switching frequency ripple



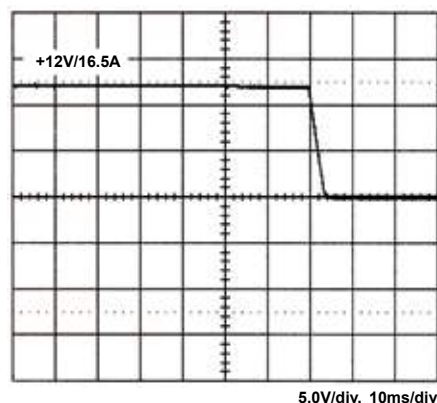
### 2. Line frequency ripple



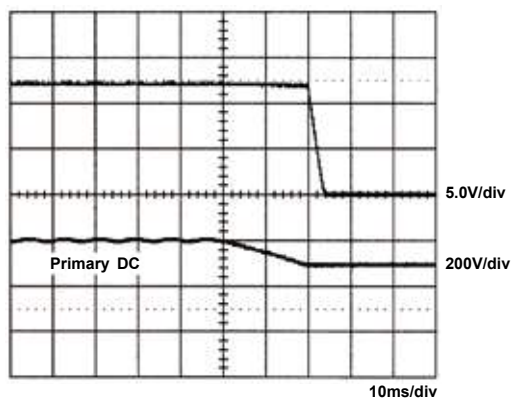
### 3. Output turn on wave form



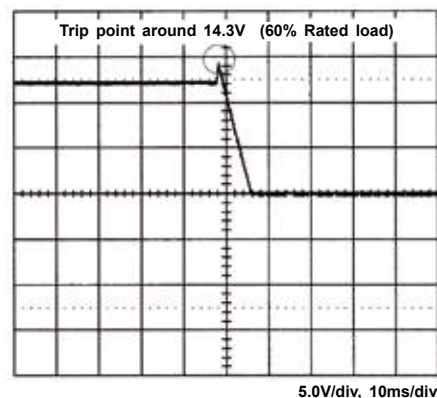
### 4. Output turn off wave form



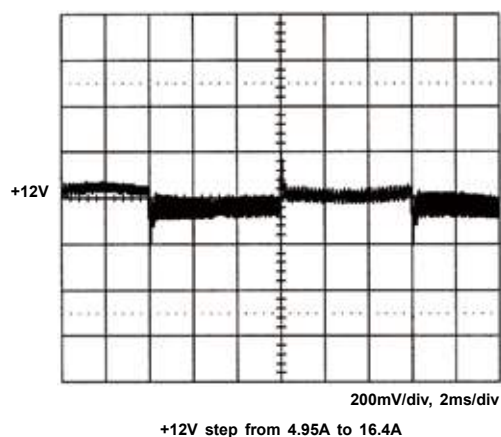
### 5. Hold-up time



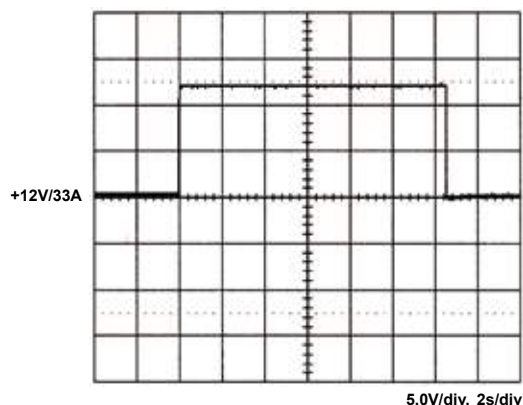
### 6. Over voltage protection



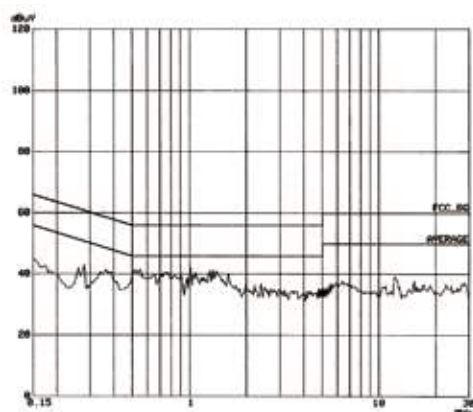
7. +12V step response



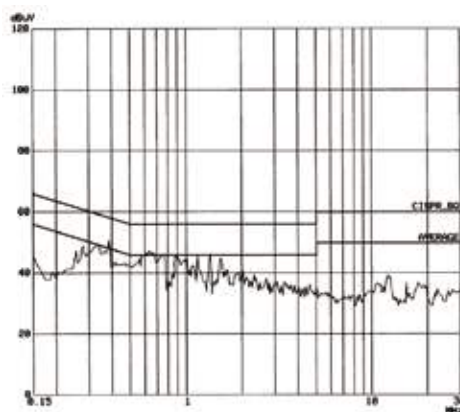
8. Peak load



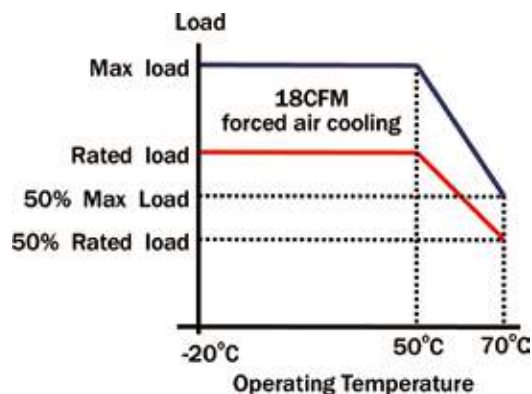
9. FCC B



10. EN55022 B



11. Power derating curve



12. Capability for driving motor

